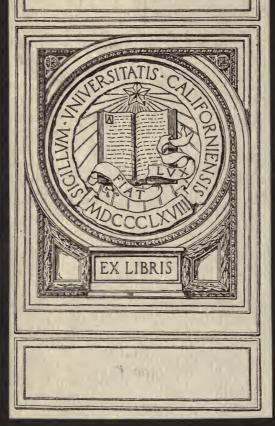
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Teachers College Columbia University

A Syllabus of

Household Management

BY

MARY LOUISE FURST, A.B.

Lecturer in the School of Household Arts, Teachers College

Technical Education Bulletin, No. 8

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STOREGE CONTINUES

Management Management

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Household Management¹

"The duties of the housekeeper are multifarious. The ideal housekeeper must have a knowledge of culinary affairs. She must know how to make food palatable, and must understand its nutritive and economic value. She must be able to superintend the cutting and making of ordinary garments; have oversight of employees, must understand details of marketing, principles of laundry work, keeping of household accounts, care of the sick. She must care for the house and all of its functions from cellar to attic. She must be not only housekeeper, but homemaker, furnish with taste and economy, understand Ethics and Psychology as applied to the training of children."—Lucy M. Salmon.

I.-EDUCATION FOR THE HOME.

- I. Education may be either (1) academic or (2) vocational, the latter combining (a) sound theory, and (b) skillful application in practice, as in the agricultural, the mechanic, and the household arts.
- II. The scope of the household arts is very wide:
 - (1) Practically, they (a) constitute the life-work of most women, and (b) they condition the lives of all the world's workers; hence
 - (c) some knowledge of and skill in them is desirable for everyone.
 - (2) Theoretically they are a focus of many sciences and arts:
 - (a) General biology and physiology are fundamental, in their laws concerning the structure and function of all living things.
 - (b) Bacteriology is essential, in its teaching concerning foods and infections.
 - (c) Physics is necessary, to interpret the nature of water, air, and gases, and the effects of heat, light, and electricity in many household operations.
 - (d) Chemistry illuminates the choice and the preparation of food, the functions of digestion, the nature of fabrics, and almost all cleaning processes.
 - (e) The science of hygiene and health protection, with its primary doctrines of cleanliness and economy, contributes to efficiency, longevity and happiness, all the way from the conservation of energy, to the housekeeper's careful and costly war against insects.
 - (f) History and anthropology are needed to explain, to justify, and perhaps to reject current customs of handicraft, service, furnishing, decoration, dress, and manners.

¹The present syllabus outlines the course of study in Household Management offered in the School of Household Arts, Teachers College. This course, in itself independent, shows the bearing of many detailed courses offered by the School as far as they can be correlated and interpreted in the light of the general problem of the housekeeper.

HOUSEHOLD MANAGEMENT

- (g) Economics, which began with Xenophon's study of the household, still centres in the order, care, management, production and consumption, wealth and progress of the home.
- (h) Scientific management has numerous principles that may be applied profitably to the household.
- (i) Sociology illuminates the nature, the functions, and the interrelations of the household and the social whole.
- (j) Aesthetics, finally, may be enlisted to irradiate the simplest details of life.
- III. As a field for research, therefore, the household offers unlimited opportunity. It has been called conservative, undeveloped, unorganized, ill-administered, and uneconomic. Any successful improvement of household procedure will, on the other hand, contribute to the solution of the largest industrial, economic, and social problems.
- IV. The housekeeper as an economist, must therefore consider economy both of time and of energy, through hygiene and scientific management, and of money, through knowledge of natural resources, prices, wages, etc.
 - (1) As a producer, the housekeeper needs to direct her management according to the nature of the satisfactions that are sought and to adjust the claims of direct and indirect utility.
 - (2) As a consumer, she should aim at an efficiency in the use of whatever she makes or buys, comparable to that which is developed in their production, manufacture, and distribution.
- V. Thus the home is a complex unit composed of many complicated parts. To administer it ideally, one must (1) know much, (2) judge wisely of the relative importance, and the proper subordination and the harmony of many things, must (3) expend discreetly not only money, but also time and energy, and finally, must (4) ever keep in mind the end as well as the means.

Attention is called also to the following related courses of instruction: Biology 53-4—Applied Biology; Household Arts 21—Household Chemistry; 62—Household Physics; Sociology 51-2—Sociology and Social Progress; and to the Household Arts Journal Club.

II.—STANDARDS OF LIVING.

- I. The budget indicates, in the interrelation of its items, the practical conclusions, of an individual or a family, concerning the relative values of many of the various activities and satisfactions of life.
- II. The comparison of many budgets, in such studies as those of the United States Bureau of Labor, the Sage Foundation, and the volumes of Chapin, More, and Richards, gives information and suggestion concerning standard and appropriate expenditures for the essential items of (a) shelter, (b) food, (c) clothing, (d) health protection, and sundries. Thus:
 - (1) An expenditure of from \$600 to \$700 a year provides the typical family of two adults and not more than three children only inade-

quate shelter and clothing; a mere approach to adequate nutrition; and must depend upon public aid for health protection and recreation.

- (3) From \$800 to \$900 a year, adequate in some European countries, is scarcely so in the United States.
- (4) A family budget of from \$900 to \$1,000 a year will provide physical necessities in New York City, including fair shelter and clothing, something for health protection and recreation, and food that is adequate, when measured by the accepted minimum of 23 cents a day for each adult.
- (5) At \$1,100 a year savings begin to be appreciable, the cost of women's clothing begins to exceed that of men, and, in the country, comforts become possible.
- (6) A \$2,000 budget has been ideally divided into 25 per cent. for food, 20 per cent. each for rent and clothing, 15 per cent. for operating expenses, and 20 per cent. for "the higher life."
- (7) In budgets of from \$2,000 to \$4,000 a year, 25 per cent. is assigned for food, 20 per cent. for rent, 15 per cent. each for clothing and operating expenses, and 25 per cent. for "the higher life."
- (8) An expenditure of \$4,000 a year shows operating expenses of 17 per cent. and clothing of 12 per cent.

III. The maintenance of standards.

- (1) As incomes increase, the proportion spent for (a) shelter remains constant, (b) food decreases, (c) clothing increases, and (d) furnishing and sundries increase rapidly, all according to the general laws of Engel, somewhat modified for the United States.
- (2) The maintenance of standards, however, depends less upon income than upon a wise expenditure.
 - (a) Inadequate food, for example, is often due largely to lack of wisdom in selection and purchasing.
 - (b) Saving, on the other hand, denotes self-control, imagination, resourcefulness, and character,—both in individuals and in nations.
- (3) The ideal standard is influenced by environment, imitation, tradition, habit, and by other considerations, not only of utility and of custom, but of emulation and display in "conspicuous consumption" and "conspicuous waste."
- (4) Both standards and expenditures may be tested by estimates of adequacy, comfort, richness of life, and by such principles as Marshall's "marginal utility;" all from data deducible from household accounting.

Attention is called also to the following related courses of instruction: Household Arts 65—Household Economics; Sociology 51-2—Sociology and Social Progress.

III.-HOUSEHOLD ACCOUNTING.

I. The Aim of Household Accounting is to aid the wise distribution of the income and the interests of life, through (a) focusing attention upon the budget, (b) providing records of actual income and expenditure, with (c) data for the study of their arrangement and (d) for comparison with other budgets and (e) with theoretical and practical ideals.

II. The Scope of Household Accounting

- (1) Differs from commercial accounting in that
 - (a) Cash and bills payable are the chief items;
 - (b) Income and expenditure are the chief interests; and
 - (c) Economy, rather than expansion, is the usual ideal.
- (2) For its own ends, Household Accounting needs to be:
 - (a) Comprehensive enough to represent all of the activities;
 - (b) Simple, since bookkeeping is but one of the housekeeper's many tasks;
 - (c) Definite, for clear record and ready reference; and
 - (d) Classified, so that, if possible, no item needs to be entered more than once.

III. The Mechanism of Household Accounting

- (1) May include:
 - (a) A cash account;
 - (b) A journal—that is, a chronological record;
 - (c) A ledger, or summary, which in small accounts may be used without the others, and in larger accounts may provide for double entry;
 - (d) Balance sheets, classifying gains, losses, and other results, and inventories of property; and
 - (e) Vouchers, such as receipted bills, cancelled checks, and the like.
 - (f) Special forms, like servants' wage accounts, may be added.
- (2) Specifically, either books or cards, or both, may be used.
 - (A) Books are, in general, more permanent and less flexible than cards.

They should be (a) neither too cumberous nor too small;

- (b) Providing space for enough items, but not so many as to be burdensome;
- (c) All under headings that indicate the larger divisions of the budget and their arrangement.
- (d) A generally acceptable form provides double pages for each month's account, with separate lines for each day, and similar double pages for the year's summary, with lines for each month.

- (B) Cards (a) may be had in many sizes, colors, rulings, binders, and boxes.
- (b) They make records, corrections, comparisons, and combinations all simple; but
- (c) Their successful use requires some natural gifts of organization and order.
- IV. The need for household accounting is obvious. It indicates the amount, the distribution, and the tendency of expenditure; the character and the comparative wisdom of the organization of the household; and, finally, the actual standard of living. It may thus enlighten both the provider of the income and the distributor of the expenditure, contributing to both independence and cooperation, and bringing both interest and pleasure to one of the most puzzling problems of family life. Some system of accounting is indispensable if retrenchment in expenditure is desired. And, finally, a study of expenditure, through household accounting, will often reveal real, although perhaps unsuspected, philosophies of life, and so lead to new estimates of many values, including those of time and vitality.

Attention is called to the following related courses of instruction: Industrial Arts 90—Business and Office Practice; Industrial Arts 94—Accounting.

IV .- THE CHOICE OF A HOME.

- I. The importance of the choice of a dwelling is scarcely to be overestimated:
 - (1) In its powers to help or to hinder health and happiness;
 - (2) In its expression of the aims and the efficiency of its occupants; and
 - (3) In its practical determination of the standard of living.
 - (4) The ideal choice may well combine colonial simplicity with contemporary cleanliness and comfort.
- II. The considerations to be weighed include:
 - (1) Some consciousness of one's aim in life;
 - (2) The characteristic or temporary requirements of the specific family, particularly from the point of view of health, and especially if it includes children, the aged, or invalids;
 - (3) The amount properly available for rent or purchase;
 - (4) Proximity to business, school, church, and recreation;
 - (5) Privacy and comfort;
 - (6) The neighboring residents; and
 - (7) The care of the dwelling, (a) since its condition and construction definitely determine the upkeep that is necessary, and (b) the area of its floor space, determine the furnishing and service.

III. Rent or Purchase.

(I) Rent:

- (a) Is reckoned at from 7 to 10 per cent. on the capital invested, so as to net 6 per cent. or less.
- (b) Landlord's agreements, especially concerning improvements, should always be written.
- (c) The agent's interests are wholly on the side of the landlord.
- (d) Leases, simple for apartments, more complicated for houses, should not be signed without careful reading.
- (e) The law of landlord and tenant traditionally favors the landlord, who pledges much more than the tenant.
- (f) Furnished houses and apartments, often economical for short terms, are expensive for long terms. Both cheap and expensive furnishings are to be avoided by tenants. An inventory of the furnishings is indispensable to both landlord and tenant.

(2) Purchase:

- (a) The procedure of purchase belongs to business and to law, rather than to household management.
- (b) The opportunities for purchase are being extended through building and loan associations; cooperative building movements like the English garden city; through business philanthropies, like The City and Suburban Homes Company, and The Russell Sage Foundation, of New York, and similar movements elsewhere; and finally, through such plans as Mr. Edison's for houses of poured cement, made by means of portable moulds.

IV. Houses.

(1) In General:

(a) The general construction and condition of a building should show, on careful inspection: Walls plumb, smooth, protected from moisture, and free from cracks; roofs preferably of tile, (easily freed from snow, ice and water); flashings, valleys, gutters, and leaders preferably of copper, or, if of other material, easily cared for, cleaned, and painted; floors of cement in cellar, kitchen and laundry, or if of wood of a well-wearing variety and finish; durable wall coverings and paint, preferably white; the trim of similar quality; tiling well laid; windows abundant, of good size, conveniently located and well constructed; the cellar convenient for storing coal, wood, vegetables; and canned fruits; rooms of sufficient number, size and arrangement, with adequate and convenient entrances, exits, and spaces for furniture; closets and store-rooms adequate in number, size, and readiness of access. Expert inspection may well be directed to the kind and condition of the plumbing, and of the facilities for heating and lighting. The presence of rats, mice, and other vermin in a building indicates poor construction and danger from fire and disease.

- (b) The exposure should be considered in relation to the points of the compass, the prevailing winds, and the sunlight.
- (c) The neighborhood for an easy walking distance in every direction should be inspected for its general character, improvements and sanitation.

(2) In Town:

- (a) Land values are based on lots in the centre of a block. The lot next to the corner costs, traditionally, 10 per cent. more. Sixty per cent. more than the next is charged for the corner lot, because of its superior frontage, light, and air.
- (3) In the country, in addition to the general considerations mentioned above, attention should be given also to:
 - (a) The soil, whether made-ground, clay, sand, or rock; to
 - (b) Drainage, sewerage, and the possible neighborhood of marshes and dumping-grounds; to
 - (c) The proximity and character of transportation; to
 - (d) Piazzas, from the points of view of both outlook and seclusion; and to
 - (e) The character and care of grounds, trees and shrubbery.

V. Apartments.

(1) The cost, in New York City, of

- (a) 5-story tenements is from 11 to 15 cents per cubic foot; of 6-story non-fireproof apartments from 12 to 16 cents; of 6-story non-fireproof elevator apartments, from 15 to 18 cents. These rent for from \$7 to \$10 a room monthly. 8-story semi-fireproof elevator apartments cost from 25 to 50 cents a cubic foot.
- (b) The City and Suburban Homes Company, and other philanthropic businesses in New York, erect model tenements, renting for \$1 a room weekly, to net 4 per cent. on the investment.
- (2) Top-floor and corner apartments have superior light, air, and freedom from noise.
- (3) Superintendents, janitors, and house servants, although ultimately paid for by the tenant, are responsible to the landlord only.

VI. House versus Apartment.

- (1) The National Housing Association considers separate houses desirable, and holds tenements unnecessary, except in New York.
- (2) In a house.
 - (a) In general: Rent includes no operating expenses; but privacy is at a maximum; space, comfort, open fires, sleeping porches, and store-rooms are available; family life is emphasized; and, if the income is limited, the virtues of economy and efficiency are encouraged.
 - (b) In the suburbs and country, transportation, the care of grounds, extra service, and increased cost of supplies, must be considered. But light and air are perhaps ten times as avail-

able as in town, and children may range freely, often without attendance.

(3) In an apartment:

Rent includes heat, water, sometimes refrigeration and telephone, and some service; leases are short and easily transferable; and the proximity to recreation increases social life;

But light, air, and space are at a premium, hall-ways are contracted, rooms are small and must be devoted to combined uses, some must be eliminated,—guests being sent to hotels and the sick to hospitals—storage is cramped, and commercial laundering is practically demanded. Surroundings are not always pleasant, and summer vacations become imperative.

Attention is also called to the following related course of instruction: Household Arts 61—House Structure.

V.-FURNISHING.

I. General Considerations:

- Vary in accordance with the separate provisions for (a) Food,
 (b) Rest, (c) Health Protection, (d) Household Occupations, (e)
 Recreation, (f) and Communication. (g) Combinations, where necessary, should be as far as possible within the same unit.
- (2) Expenditure is less essential to excellence than discrimination.
 - (a) The amount to be spent should be adjusted to (b) a list of essentials, and (c) of desirable additions, and (d) compared with expenditures that are known, from model flats up.
- (3) Purpose, fitness, and utility must be considered. Genuineness, simplicity and proportion interpret the value of cheap and frail, of veneered, gilded, and antique, and of willow, reed, and cane furniture, of various wood finishes, and of upholstery.
- (4) General schemes of lighting and ventilation, color, proportion and harmony are important.
- (5) The prospective durability and care required should never be forgotten.

II. Special Items.

- Floor coverings—mattings, carpets, oriental and other rugs are to be judged by aesthetic, hygienic, and economic considerations.
 Design, dyes, and weaves greatly influence cost, care, and durability.
- (2) Wall treatment varies in color, cheer, durability, hygiene and price through (a) kalsomine, (b) flat, gloss, or stippled paint, (c) wall papers, (d) burlap, (e) wood, (f) decorated, and (g) plaster surfaces.
- (3) Draperies, portières, shades and curtains aid furnishing and modify lighting through pattern, texture, surface, and color. Their cost, care, and durability vary greatly.

- (4) Lighting with oil, gas, gasoline, alcohol, acetyline, and electricity affects comfort and health through countless variations in safety, devices and cost.
- (5) Heating with hot air, hot water, and steam vary in efficiency, care, and cost of installation, operation and upkeep.

III. The Separate Units.

(1) The Food unit provides for (a) the preparation of food in scullery and kitchen, (b) for service in butler's pantry, china closet, and silver store, and (c) for storage and refrigeration.

(2) The Rest unit includes (a) sleeping rooms for family, (b) chil-

dren, (c) guests, and (d) servants.

Cleanliness, freshness, ventilation and daintiness are aided by light and simple furnishings, and the absence of hangings, pictures, ornaments, etc.

Beds of métal and wood may be compared in hygiene and adaptation to the size of the dwelling; springs, mattresses, and linen, in style, durability, and cost.

Bed-rooms for children and guests have special requirements.

Servants' rooms are too often repositories for cast-off furnishings, when they might meet special needs and comfort at small cost.

(3) The Recreation or Entertainment unit includes (a) reception room, (b) living room, (c) library, (d) special rooms for entertainment or for music, pictures, etc., and (e) piazzas.

Reception and living rooms represent the housekeeper's ability to consider her guests, as this is measured by the comfort of open fires, chairs, the absence of family portraits, the selection, framing and hanging of pictures, the use and beauty of ornaments.

Piazzas for rest and entertainment need light-weight furnishings unaffected by the weather.

(4) The Health Protection and Cleaning Unit includes (a) bathrooms, (b) laundry, and sometimes (c) an isolation apartment for illness.

The isolation apartment, which may also be used as a nursery, should be conspicuously clean and cheerful.

(5) The Communication Unit includes (a) halls, and (b) stairways, where light, space and ventilation, durable floor coverings, and places for hats, coats, umbrellas, etc., are important.

Attention is called also to the following courses of instruction: Household Arts 52—Household Furnishing; Fine Arts 19-20—House Decoration; Industrial Arts 5—Furniture and Metal-work Design; 22—Cabinet work; 40—Pottery.

VI.-DINING-ROOM AND KITCHEN.

I. The Dining-Room.

(1) Furniture requires (a) a finish that is both satisfactory in color and lighting, and durable under heat and handling.

- (b) Sideboards may be either antique, reproductions, or of modern design.
- (c) The china-closet may combine the aesthetic and the utilitarian.
- (d) Chairs in their height, weight, and upholstery should be both comfortable and durable.
- (e) The floor coverings must be designed for special wear.
- (f) Serving table, tabourette, tea wagon and wheeled tray may be added.
- (2) Linen, china and silver should be chosen with regard to both quality and care, as these are determined by tradition and scientific knowledge.
- II. The Butler's Pantry requires special lighting, plumbing, and storage facilities.
- III. The Refrigerator demands peculiar care for its location and construction; its proper temperature, ventilation, drainage and cleaning.

IV. Kitchen.

- (1) The exposure of the kitchen and its adjustment to the rest of the house, its lighting and ventilation, and the size, arrangement, glazing and screening of its windows are all worthy of much attention.
- (2) A plan of the kitchen with a schedule of its necessary and desirable furnishings is important.
- (3) Kitchen woodwork should be of a design and finish that may be easily and efficiently cared for.
- (4) Walls of tint, paint, sanitary paper, wainscoting, enamelled metal, glazed brick, and tile, each have their advantages and disadvantages, as have
- (5) Floors of wood treated with oil or paraffin, or covered with mats, oilcloth, linoleum, rubber, cement, composition, or tile.
- (6) Pantries need special walls and shelves for stores and implements.
- (7) Closets for pots, pans, brooms, brushes and the like have certain especially desirable sizes and locations.

(8) Fixtures.

- (a) Stoves vary greatly in design, construction and cost, according as they are intended for wood, kerosene, coal, alcohol, or electricity; or as they combine cookery and water-heating, or coal and gas, gas and fireless cooking.
- (b) Special alcohol and electric cooking devices are satisfying chiefly as luxuries.
- (c) Table heights and sizes, and coverings of oilcloths, zinc, marble, and composition should be adapted to their uses. Hinged and rolling tables are useful, as are
- (d) Shelves for special purposes.
- (e) Sink, drain-board and neighboring shelves require careful choice in design, in their composition of soapstone, enamelled

iron or steel, or porcelain, and in their special faucets and other appliances.

- (f) Mechanical and electrical time and labor-saving appliances are highly desirable, but sometimes increase efficiency at the expense of care and cost.
- (9) Kitchen linens should meet laboratory tests. Paper is an available substitute for some uses.
- (10) Kitchen utensils of copper, aluminum, tin, enamelled and earthenware must be chosen with reference to the effect upon them of heat, acids and alkalies.

VII.-MOVING AND SETTLING.

- I. Moving and settling require executive ability in planning and carrying out both departure and arrival with the smallest expenditure of energy on the part of the housekeeper and her helpers, and the smallest disturbance of the comfort and nutrition of the family.
- II. Its planning should include:
 - (1) A scale drawing of the floor space of the new dwelling with furniture and rugs in their places;
 - (2) A memorandum of the articles to be moved which will indicate
 - (a) Superfluous and needed articles,
 - (b) The vans or car-space needed, and
 - (c) The order of packing and unpacking.
 - (3) Transportation should be arranged early.
- III. Superfluous articles require, if put in (1) storage, attention to protection, price, packing, cleanliness and cold storage. (2) The final disposal of old furniture, plate and copper, clothing and bedding, books and papers, and cellar accumulations, is simple.
- IV. Packing, if orderly, simplifies settling:
 - (1) Proceeding from the least to the most used articles and reversing the order in unpacking.
 - (2) Preliminary cleaning and wrapping are expedient.
 - (3) Expert packing is important for perishable articles and long distances.
 - (4) Crates may be necessary; barrels and special boxes have advantages.
- V. The preparation of the new home includes:.
 - (1) Disinfection, sometimes by experts;
 - (2) The banishment and prevention of insect pests by chemical and mechanical means;
 - (3) Whitewashing and provision for rubbish and garbage;
 - (4) Cleaning, (a) with the preliminary preparation of food, utensils,

fuel, and materials for the workers, (b) includes the removal of loose dirt, scrubbing, and the removal of stains, with (c) precautions against damage.

VI. Settling (1) beginning with kitchen and bed-rooms (2) may include numerous practical devices.

VIII.—SUPPLIES.

- The cost of commodities has increased in almost every item, and some have doubled or trebled in a generation.
 - (1) Production is a partial cause:
 - (a) Agriculture is conservative,
 - (b) The population has increased more rapidly than the food supply, and
 - (c) There has been great waste of natural resources.
 - (2) Manufacture has improved enormously, although it is sometimes careless and unsanitary and the profit on many patented processes and products is excessive.
 - (3) Distribution adds to cost necessarily and sometimes unnecessarily through
 - (a) The economic pressure of supply and fashion,
 - (b) The psychology of advertising and salesmanship, which often takes advantage of the purchaser's ignorance, and
 - (c) The effect of credit on prices.
 - (4) Adulteration and substitution are but partially checked by pure food laws and correct labels.
 - (5) False or misleading weights, measures, and packages are wide-spread.
- II. The Control of Expenditure.
 - (1) The smallest income offers opportunity for discretion.
 - (2) The choice of essentials ensures welfare and not merely gratification.
 - (3) The rejection of the unsatisfactory, and
 - (4) The cultivation of satisfaction from small outlays may become pleasant, and
 - (5) The development of large aims a privilege.
- III. The Principles of Purchase.
 - (1) In general the Roman "Let the buyer beware," is still wise advice.
 - (2) Home-made clothing and food are both better and cheaper wherever these are possible.
 - (3) Purchase from the producer may sometimes be arranged.
 - (4) Quantity reduces prices, weighing is often preferable to measuring, and home scales and measures should be used for checking—to the encouragement of honesty.

- (5) Storage of various sorts, with its advantages and disadvantages, its conditions and regulations, should be understood by the house-keeper.
- (6) Tests for the purity of foods and fabrics may be applied at home.
- (7) Labels should be examined and manufacture inquired into.
- (8) Independence of fashion, persuasion, and bargains may be based on taste, knowledge, and the experience that cheapness is not always economy.
- (9) Personal selection or the services of a professional buyer are advisable wherever possible.
- (10) Purchasing clubs and cooperative stores are beginning a development in the United States that parallels their success in other countries.
 - (II) Special knowledge accumulates rapidly concerning the buying of many supplies.

Attention is called also to the following courses of instruction: Household Arts 20—Food Production and Manufacture; 40—Textiles; 41—Clothing; 44—History of Costume; 66—Marketing; Industrial Arts 81—Textile Materials and Processes.

IX.-FOOD.

- I. The housekeeper is responsible for the nutrition of the family. She must therefore understand:
 - (1) The composition and digestibility of different foods;
 - (2) The quantity required for health and efficiency;
 - (3) The modifications necessary for occupation and climate, and
 - (4) For children, invalids and the aged.
 - (1) Composition:
 - (a) A knowledge of the relations of protein, carbohydrate, fat, mineral salts and water to a well balanced diet is essential for both housekeeper and teacher.
 - (b) One may profitably compare the economic and nutritive values of beef and eggs, eggs and milk, milk and cheese, cheese and meat, meat and legumes, legumes and cereals, cereals and bread, cereals and macaroni, the cereals themselves, ready to eat and cooked cereals, fruits and green vegetables, fruits and nuts.
 - (2) Quantity:
 - (a) Dietary standards are based upon careful observation of numerous individuals, but they are all open to further revision.
 - (b) A simple dietary may to kept in any home and the results compared with established standards.
 - (3) A comparison of the Atwater and the Chittenden dietaries will illustrate the changing conceptions of standard dietaries.
 - (4) For children:
 - (a) Simple nutrients must be given in sufficient quantity to provide for growth and activity.

- (b) Judgment as to what to withhold is of equal importance.
- (c) Typical menus for children of different ages are valuable as guides.
- II. The menu is a test not only of knowledge of food materials, but of imagination and originality in combination and skill in cookery.
 - (1) The general principles of cookery may be learned in a few hours' study, but good technique comes only with practice.
 - (2) A well planned dinner is an inspiration and should be recorded for future reference.
 - (3) Menus are too often based on caprice rather than science. The cost of indigestible food is very great.
 - (4) The proper storage and use of left-overs are an aid to economy.
 - (5) Very slight and simple variations in method of cooking, in flavor, or in service avoid monotony.
 - (6) Foreign and vegetarian cookery is full of suggestion.
 - (7) Menus may cost from 12 to 75 cents a day a person.
- III. Taste and care in service, like skill in cookery, is an indirect aid to nutrition.

Attention is called also to the following related courses of instruction: Household Arts 10—Elementary Food Economics; 11—Dietary Administration; 15—Dietetics; 25—Physiological Chemistry; 30—Food Preparation; 31—Experimental Cookery; 32—Home Cookery; 35—Cookery for Invalids; 38—The History of Cookery; 115—Nutrition.

X.—THE CARE OF THE HOUSE.

I. Cleanliness:

- (1) Often requires a new and special definition, as for cellar, refrigerator, kitchen utensils, etc.
- (2) A daily, weekly, and monthly schedule of cleaning is desirable.
- (3) The cost of cleanliness should include many items.
- (4) Sunlight is one of the best agents.
- II. Dust, perhaps the most common of household nuisances and dangers,
 - (1) Is to be prevented by care in household construction and equipment.
 - (2) And systematically removed by careful methods of friction, adhesion, expulsion or suction.

III. Ventilation.

- (1) Bad air interferes with important bodily functions.
- (2) Pure air both removes evils and confers benefits.
- (3) Inside and outside air vary in helpful qualities.
- (4) The amount of air breathed per person per minute determines the minimum cubic foot of air space for each person.
- (5) There are various simple means of ventilation for the household.

- IV. Cleaning (1) to be efficient, harmless and inexpensive must (2) be based upon a knowledge of—
 - (a) The material to be cleaned, such as stains and varnishes,, wood, metal, glass and stone surfaces, wall and floor coverings, grease, stains, etc.;
 - (b) The material to be removed, such as mixtures of dust and grease, stains, etc.;
 - (c) The cleaning agents such as soaps, soap powder, whiting, acids, alkalis, and patent cleaners, which are often to be classed with patent medicines; and
 - (d) The physical or chemical action employed in the use of polishes, solvents, emulsions, and alkaline and electrical reactions.
 - (e) The relative efficiency and cost of home and commercial laundering may be accurately measured.
- V. The preservation of many household appliances and furnishings depends upon the application of knowledge similar to that involved in cleaning.
- VI. Plumbing for water, waste, heating and lighting (1) may be at least partially guarded against stoppage, leaks, freezing, and other accidents. (2) Small repairs and replacements may be made by the householder.
- VII. Heating appliances and the management of fires require the practical application of physical principles.

Humidity should also receive attention.

VIII. The Vacant House requires especial care.

Attention is called to the following related courses of instruction: Education 87—Hygiene and Sanitation; Household Arts 26—Sanitary Chemistry;64—Housewifery; 67—Laundering; 80—Municipal and Industrial Hygiene and Sanitation.

XI.-DOMESTIC SERVICE.

The problem of domestic service concerns the supply, the distribution, and the conditions of the workers.

- I. There is a scarcity of skilled workers not only in the United States but in other countries.
 - (1) A comparison of the relation of supply to demand in this country during the last three decades shows that the demand has doubled while the supply has increased only by half.
 - (2) The workers prefer to accept the conditions of modern industry rather than those of the home.
 - (a) A comparison of life in the home and in the factory, in the matter of hours, wages, healthfulness of occupation, and opportunity for social life, is imperative.

- II. The Intelligence Office is the main factor in distribution, more than half the workers seeking their employment through it.
 - (1) Offices are of many grades.
 - (a) Those characterized by lack of system and absence of records are to be mistrusted.
 - (b) Many offices profit through an abuse of the fee.
 - (c) Laws recently passed in New York City protect both the employer and the employee.
 - (2) Offices in general have hindered rather than helped the service problem.
 - (a) Semi-philanthropic offices have met with great difficulties.
 - (3) The possible abuse by the office of the written reference makes the personal reference more trustworthy.
 - (4) The verbial contract between mistress and maid gives opportunity for serious misunderstanding. A written contract is necessary in every business agreement.

III. The Improvement of Conditions.

- (1) The history of domestic service in the United States illuminates present conditions and suggests possible improvements.
- (2) Shorter hours of service and more personal freedom must be allowed.
- (3) The removal of many processes from the home is delayed by present cost and unreliability.
- (4) Household administration may be greatly improved.
 - (a) A better adjustment is possible between the amount of work to be done and the service provided.
 - (b) The work of the general and the special servant must be clearly outlined.
 - (c) The dress of the worker is worthy of consideration.
- (5) Mechanical appliances save time and labor. Increasing demand is improving their efficiency and reducing their cost.
- (6) More education for both mistress and maid is imperative. (a) German women have asked the state to provide training for service. (b) Training schools for servants have not yet been successful in the United States.

Attention is called also to the following related courses of instruction: Industrial Arts 98—The History of Industry.

XII.-THE HOME.

I. The Development of the Household.

- (1) The environment of industries, sciences and principles has been revolutionized; and
- (2) Household occupations have been reduced in number by the development of industry; yet
- (3) Household equipment has developed but little, invention and capital having sought more remunerative fields; and

- (4) Household efficiency has but recently become a subject of study.
- (5) Tradition holds some housekeepers to custom and imitation.
- (6) Indifference in others ignores or avoids responsibility.
- (7) Responsibility, routine and seclusion oppress some.
- (8) A more independent and vocational life is sought by others.
- (9) Reforms are slow and difficult:
 - (a) Institutions are conservative, and
 - (b) Innovation is difficult to the overworked and irksome to the luxurious.
- (10) Progress is usually due to a general imitation of the few who first put timely ideals into practice.
- (II) Individualism and cooperation:
 - (a) The individual home is criticized as conservative, costly, and sometimes wasteful;
 - (b) Cooperative purchasing and living offer promising fields for experiment;
 - (c) Clubs, colleges, associations, government and international congresses are all contributing suggestions to the home.

II. The Responsibility of the Home.

- The home remains primarily responsible for the promotion of health, the prevention of disease, the care of the sick and the aged.
- (2) The physical, mental and moral care and rearing of children remain a responsibility of the home.
- (3) The home is subject to civic and governmental conditions over which it has yet only indirect influence.
- (4) The homemaker has a large influence in determining the economic, physical, educational, social and moral position of the household.
- (5) The variety and interest of the field demands the clear determination of essentials, together with a wise choice and a conscious rejection among other interests.
- III. The home thus offers opportunity for a number of careers, all demanding capacity and character, expressing personality and satisfying ambition.
 - (1) The housekeeper may be a homemaker, influential at home and socially.
 - (2) The home may be made a centre of aesthetic interest.
 - (3) It may be a centre for the application of scientific, economic, or sociological knowledge.
 - (4) It may contribute to personal and public health and industry and to social and moral progress.

Attention is called also to the following courses of instruction: Household Arts 5—Typical Modern Industries related to the home; 60—History of the Household; 68—Home Nursing and Emergencies; 81—Public Health Problems; 82—The Care of Infants and Small Children; Physical Education 187-8—Hygiene of Childhood and Adolesence; Education 21-2—The Psychology of Childhood.

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